REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Final Office Action mailed December 17, 2009, Claims 1, 3, 5-12 and 18-24 remain in this application. Claims 1, 3, 5-9, 19-21 and 23-24 have been amended. In view of the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Claim Objections

In the Office Action, claims 2-9, 19-21 and 23-24 are objected to because the term "overall brightness" should be changed to "combined brightness". Claims 2 and 4 have been cancelled without prejudice or disclaimer. Applicant have amended the remaining objected Claims 3, 5-9, 19-21 and 23-24 in a manner which is believed to obviate the objections. Accordingly, withdrawal of the objections is respectfully requested.

Claim Rejections under 35 U.S.C. §103(a)

The Office has rejected Claims 1, 2, 4, 18, 19 and 22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,518,962 ("Kimura") in view of U.S. Patent No. 7,042,524 ("Onagawa"). Applicants respectfully traverse the rejections.

Independent Claim 1 has been amended herein to better define Applicant's invention over the combination of Kimura and Onagawa. Applicants have incorporated the limitations of dependent claims 2 and 4 and have further defined with greater specificity what comprises employing gamma characteristics for processing the input signals in dependence on the combined brightness level. Accordingly, Applicants respectfully submit that the cited portions of Kimura, considered individually or in combination, fail to disclose or suggest the specific combination of claim 1, as amended. For example, the cited portions of Kimura fail to disclose or suggest at least the limitation, *"wherein the means for controlling the at least one drive transistor comprises a signal processing device for determining a combined brightness level and for processing the input signals for the pixels in dependence on the combined brightness level, wherein the signal processing device is adapted to employ gamma characteristics for processing the input signals in dependence on the combined brightness level, wherein said gamma characteristics comprising a gamma correction LUT altered by a*

LUT generator to set a certain maximum brightness level depending on the combined brightness level, as recited in claim 1 (Emphasis Added).

The Office Action, at page 4, rejects claims 4 and 22 for allegedly teaching, *"wherein the signal processing device is adapted to employ gamma characteristics for processing the input signals in dependence on the brightness level."* The Examiner refers Applicants to Kimura at col. 40, lines 17-21 in support of his assertion. Applicants respectfully note that the type of gamma correction taught in Kimura at col. 40, lines 17-21 is a **fixed gamma correction** which simply alters pixel data values based upon **a predetermined function**. In contrast to the fixed gamma correction taught in Kimura, the invention teaches **a dynamic gamma correction** where the **the gamma function is dynamically changed based upon the average display field brightness which can change over time**. See for example, Figs. 5c of Applicant's specification and the associated disclosure at page 10 which defines how the LUT is dynamically selected based upon the average display field brightness which can change over time.

The characteristic of Fig. 5c can be used for gamma processing in order to obtain the sparkling effect. This gamma correction mechanism may be adapted to control the maximum brightness of the display pixels via the diagram shown in Applicant's Figure 4. The combined brightness level of the image is determined (38) and the gamma correction LUT (40) is altered by a LUT generator (44) to set a certain maximum brightness depending on the combined brightness level. The total relation between input data and displayed luminance should have the shape of Figure 5C. Images with a low combined brightness level will have a higher maximum output (curve 1) value than images with a high combined brightness level (curve 2 or 3).

It should be understood that there are 256 curves corresponding to the 256 LUTs that are graded between the three that are shown in Fig. 5c for ease of explanation (e.g., LUT 0, LUT 128 and LUT 256). With reference to Fig. 5c, if the average field data values are, for example, between 0 and 255, the average frame data level can be anywhere between 0 and 255. Knowing that there are 256 LUTs to choose from, where only the curves for three of

which are shown. By way of example, if the average frame data level is 0, you link the average frame value of 0 to LUT 0, which might look like the Fig. 5c, curve 1. Curve 1 is then dynamically applied to the data. Otherwise, for example, if the average field data value is 128, you dynamically select LUT 128, which might look like the Fig. 5c curve 2. Curve 2 is then dynamically applied to the data. Otherwise, continuiing with the example, if the average field data value is 255, then you dynamically select LUT 255, which might look like the Fig. 5c curve 3. Curve 3 is then dynamically applied to the data.

It is shown that Applicants have provided a novel dynamic linear mapping between the average brightness value and the LUT. It should be understood that many other dynamic relationships are within the scope of the invention, aside from the linear relationship provided by way of example.

The secondary reference, Onagawa, is not cited by the Office for teaching the gamma correction feature.

It is therefore respectfully submitted that the cited portions of Kimura and Oganawa, individually or in combination, fail to disclose or suggest at least the limitation, *"wherein the means for controlling the at least one drive transistor comprises a signal processing device for determining a combined brightness level and for processing the input signals for the pixels in dependence on the combined brightness level, wherein the signal processing device is adapted to employ gamma characteristics for processing the input signals in dependence on the combined brightness level, wherein said gamma characteristics comprising a gamma correction LUT altered by a LUT generator to set a certain maximum brightness level depending on the combined brightness level,* as recited in claim 1 (Emphasis Added). Hence, claim 1 is allowable. Accordingly, claims 2 and 4 are also allowable, at least by virtue of their dependency from claim 1.

Independent Claim 18 recites similar subject matter as Independent Claim 1 and therefore contains the limitations of Claim 1. Hence, for at least the same reasons given for Claims 1, Claim 18 is believed to recite statutory subject matter under 35 USC 103(a). Accordingly, claims 19 and 22 are also allowable, at least by virtue of their dependency from

claim 18.

Rejection of Claim 3, 5-7, 20 and 23

The Office has rejected claims 3, 5-7, 20 and 23 under 35 U.S.C. §103(a) as being unpatentable over the combination of Kimura and US Patent Publication no. 2003/0025718 ("Mori"). Applicants respectfully traverse the rejections.

Claims 3, 5-7, 20 and 23 are allowable

As explained above, the cited portions of Kimura do not disclose or suggest each and every element of claim 1 and 18 from which claims {3, 5-7} and {20, 23}, depend, respectively. Mori does not disclose each of the elements of claim 1 that are not disclosed by Kimura. For example, the cited portions of Mori fail to disclose or suggest, "*means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of pixels in the image",*** as recited in claim 1 (Emphasis Added). Thus, the cited portions of Kimura and Mori, individually or in combination, do not disclose or suggest, *"means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of the pixels in the image",*** as recited in claim 1 (Emphasis Added). Hence, claims 1 and 18 are allowable and claims {3, 5-7} and {20, 23}, are allowable, at least by virtue of their respective dependence from claims 1 and 18.

Rejection of Claims 8, 21 and 24

The Office has rejected claims 8, 21 and 24 under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of U.S. Patent No. 6,582,980 ("Feldman"). Applicants respectfully traverses the rejections.

Claims 8, 21 and 24 are allowable

As explained above, the cited portions of Kimura do not disclose or suggest each and every element of claim 1 and 18 from which claims {8} and {21, 24}, depend, respectively. Feldman does not disclose each of the elements of claim 1 that are not disclosed by Kimura. For example, the cited portions of Feldman fail to disclose or suggest, "*means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of pixels in the image",*** as recited in claim 1 (Emphasis Added).

Thus, the cited portions of Kimura and Feldman, individually or in combination, do not disclose or suggest, "*means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of pixels in the image",*** as recited in claim 1 (Emphasis Added). Hence, claims 1 and 18 are allowable and claims {8} and {21, 24}, are allowable, at least by virtue of their respective dependence from claims 1 and 18.

Rejection of Claims 9-12

The Office has rejected claims 9-12 under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of Feldman and further in view of JP 2001-1305511 A ("Hiroykui"). Applicants respectfully traverses the rejections.

Claims 9-12 are allowable

As explained above, the cited portions of Kimura and Mori, alone and in any reasonable combination, do not disclose or suggest each and every element of claim 1 from which claims 9-12 depend. Hiroykui does not disclose each of the elements of claim 1 that are not disclosed by the combination of Kimura and Feldman. For example, the cited portions of Hiroykui fail to disclose or suggest, "*means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of pixels in the image",*** as recited in claim 1 (Emphasis Added).

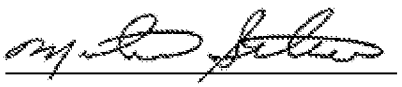
Thus, the cited portions of Kimura, Feldman and Hiroykui, individually or in combination, do not disclose or suggest, *"means for controlling the at least one drive transistor of each pixel individually in dependence on a respective input signal providing a drive level for the pixel and in dependence on the* ***combined brightness level of the multitude of pixels in the image",*** as recited in claim 1 (Emphasis Added). Hence, claim 1 is allowable and claims 9-12 are allowable, at least by virtue of their respective dependence from claim 1.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1, 3, 5-12 and 18-24 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



Michael A. Scaturro
Reg. No. 51,356
Attorney for Applicants

Mailing Address:
Intellectual Property Counsel
Philips Electronics North America Corp.
P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, Previously Presented York 10510-8001